

What is claimed is:

- 1 1. A method for audio content playback during video trick mode playback,
2 comprising:
3 reading a coded digital data from a storage medium, said coded digital data
4 comprising a video programming and corresponding audio programming;
5 decoding from a portion of said digital data comprising said audio
6 programming a plurality of digital audio samples corresponding to a selected portion
7 of the video programming; and
8 key shifting a playback audio pitch associated with said audio samples to
9 compensate for said trick mode playback.
- 1 2. The method according to claim 1, further comprising dropping selected ones of
2 said audio samples at a rate approximately corresponding to a selected trick mode
3 video playback speed of said video programming; and
4 generating an audio playback signal corresponding only to a remaining set of
5 said audio samples.
- 1 3. The method according to claim 2, wherein said audio samples are dropped at a
2 rate of every n samples, where n is equal to the selected trick mode playback speed
3 relative to a normal playback speed.
- 1 4. The method according to claim 3, wherein said key shifting step further
2 comprises shifting said playback audio pitch by a factor of approximately $1/n$.
- 1 5. The method according to claim 1, further comprising repeating selected ones of
2 said audio samples at a rate inversely proportional to a selected trick mode video
3 playback speed of said video programming to produce a trick mode set of audio
4 samples; and
5 generating an audio playback signal corresponding to said trick mode set of said
6 audio samples.

6. The method according to claim 5, wherein said audio samples are repeated $1/n$ times, where n is equal to the selected trick mode playback speed relative to a normal playback speed.

7. The method according to claim 6, wherein said key shifting step further comprises shifting said playback audio pitch by a multiplying factor of approximately $1/n$.

8. The method according to claim 1 wherein said storage medium is selected from a group consisting of a DVD, a magnetic hard disk, magneto optical disk and a video CD.

9. The method according to claim 1, wherein said coded digital data is an MPEG format and said reading step further comprises decoding an MPEG bit stream to obtain said audio samples.

10. Apparatus for audio signal playback during fast forward playback video trick modes, comprising:

a storage medium reader for reading a coded digital data from a storage medium, said coded digital data comprising a video signal and a corresponding audio signal;

a decoder for decoding from a portion of said digital data comprising said audio signal a plurality of digital audio samples corresponding to a selected portion of the video signal; and

an audio processor for key shifting a playback audio pitch associated with said audio samples to compensate for said fast forward playback mode.

11. The apparatus according to claim 10, wherein said decoder drops selected ones of said audio samples at a rate approximately corresponding to a selected trick mode video playback speed of said video signal; and

a digital to analog converter generating an audio playback signal corresponding only to a remaining set of said audio samples.

1 12. The apparatus according to claim 11, wherein said audio samples are
2 dropped at a rate of every n samples, where n is equal to the selected trick mode
3 playback speed relative to a normal playback speed.

1 13. The apparatus according to claim 12 wherein said audio processor shifts said
2 playback audio pitch by a factor of approximately $1/n$.

1 14. The apparatus according to claim 10, wherein said decoder repeats selected
2 ones of said audio samples at a rate inversely proportional to a selected trick mode
3 video playback speed of said video presentation to produce a trick mode set of audio
4 samples; and

5 a digital to analog converter generating an audio playback signal
6 corresponding to said trick mode set of said audio samples.

1 15. The apparatus according to claim 14 wherein said audio samples are
2 repeated $1/n$ times, where n is equal to the selected trick mode playback speed
3 relative to a normal playback speed.

1 16. The apparatus according to claim 15 wherein said audio processor shifts said
2 playback audio pitch by a multiplying factor of approximately $1/n$.

1 17. The apparatus according to claim 10 wherein said storage medium is selected
2 from the group consisting of a DVD, a magnetic hard disk, magneto optical and a
3 video CD.

1 18. The apparatus according to claim 10 wherein said coded digital data is
2 arranged in an MPEG format and said storage medium reader decodes an MPEG bit
3 stream to obtain said audio samples.